MIAMI-SOUTH FLORIDA
National Weather Service Forecast Office
http://www.weather.gov/miami

January Summary: Warm and Dry Winter Rolls On

February 1, 2013: South Florida's warm and dry winter pattern of 2012-2013 continued in January. Average temperatures for the main climate sites were four to six degrees above normal. These values placed each site among the top 10 warmest on record for the month of January. A monthly summary for each site follows.

- **Miami International Airport** had an average January temperature of 73.2 degrees Fahrenheit. This is 5 degrees above the 30-year normal for January and ties the 4th warmest January on record for the Miami area. The lowest temperature recorded last month was 56 degrees on the 18th. The highest temperature recorded last month was 83 degrees on the 4th and 9th. Miami observed 15 consecutive days of maximum temperatures of 80 degrees or higher from January 2nd through 16th. This tied the all-time record for consecutive 80+ degree days during the month of January.

- **Palm Beach International Airport** had an average January temperature of 71.8 degrees Fahrenheit. This is 6.1 degrees above the 30-year normal for January and is the 11th warmest January on record. The lowest temperature recorded last month was 51 degrees on the 18th. The highest temperature recorded last month was 83 degrees on the 6th and 9th.

- **Fort Lauderdale/Hollywood International Airport** had an average January temperature of 73.0 degrees Fahrenheit. This is 4 degrees above the 30-year normal for January and ties the 5th warmest January on record. The lowest temperature recorded last month was 54 degrees on the 18th. The highest temperature recorded last month was 83 degrees on the 4th.

- **Naples Municipal Airport** had an average January temperature of 70.7 degrees Fahrenheit. This is 6.2 degrees above the 30-year normal for January and is the 6th warmest January on record. The lowest temperature recorded last month was 50 degrees on the 18th. The highest temperature recorded last month was 86 degrees on the 9th.

A remarkable lack of cold frontal passages led to the warm January across South Florida, with none of the main climate sites dropping below 50 degrees. Even the colder interior locations of southern Florida did not observe temperatures below 40 degrees. Only three fronts of significance passed through our region which is an unusually low number of fronts for this time of year. While most of the country endured bouts of Arctic air masses, these shots of cold air did not make it into the southern portion of Florida. A persistent and unseasonably-strong subtropical high pressure area in the mid-troposphere extended from the Caribbean Sea and western Atlantic across most of the Florida peninsula, shielding the peninsula from the brunt of the continental/Arctic air masses which affect

North America in winter (Figure 1). The coldest temperatures across South Florida were observed on January 18th when lows dropped into the 40s and 50s.

Another remarkable statistic about the winter of 2012-2013 to date is that November 2012 was colder than the two months following it (December 2012 and January 2013). The last time this happened was in 1949-1950 (except 1956-1957 in Naples) and has occurred only four times in the last 100 years.

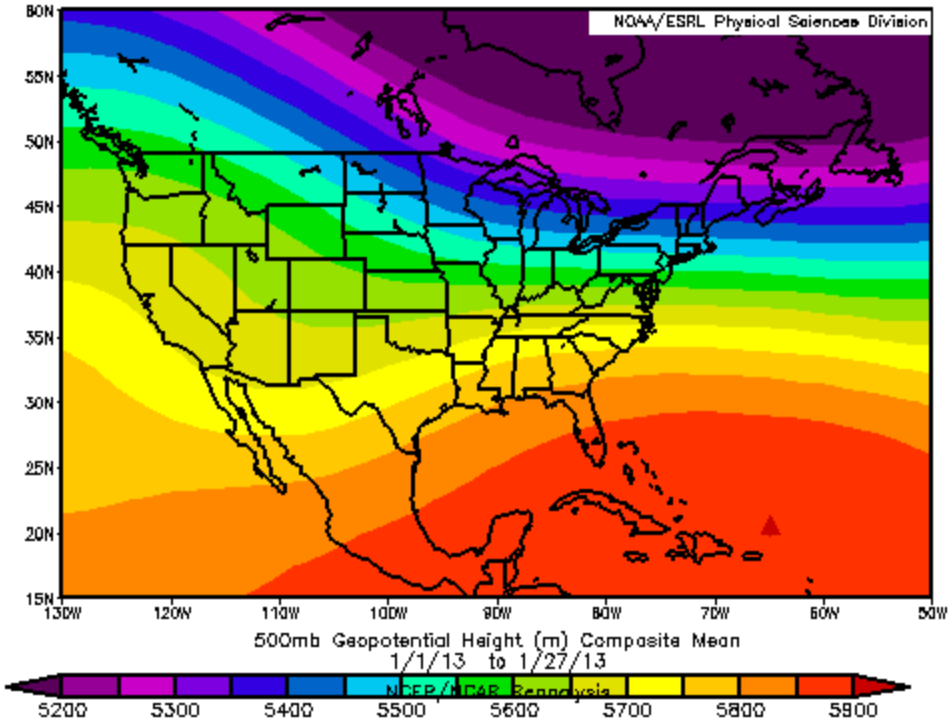


Figure 1: Mean 500 mb (mid-troposphere) heights for most of January. Orange/red colors across Florida indicate subtropical high pressure which acted to shield the state from most of the continental and Arctic air masses which affected large parts of the country. The main flow of Arctic air is roughly indicated by the blue and purple colors across the northern Plains, Great Lakes and northeast U.S., with periods of cold weather in the western United States.

PRECIPITATION

Most of south Florida was quite dry in January as the lack of cold fronts and atmospheric stability associated with the subtropical high kept moisture levels on the low side. Locations receiving the most rain were along the Atlantic coast in Palm Beach and Broward counties from showers moving onshore. Another area of higher rainfall extended from the Everglades and Big Cypress north to Lake Okeechobee, mostly from heavy evening showers on January 6th. The rest of south Florida received less than an inch of rain the entire month, with two locations (Marco Island and South Bay/Okeelanta) recording no measureable rainfall.

Following is a list of sites with January 2013 rainfall, departure from normal and rank:

Station – ***Beginning of Records***	**Jan. 2013**	**Departure and Rank**
FORT LAUDERDALE - *1913*	0.98	-2.65 (33rd driest)
WEST PALM BEACH – *1888*	0.79	-2.34 (20th driest)
MIAMI - *1911*	0.54	-1.08 (T-24th driest)
NAPLES – *1942*	0.15	-1.70 (8th driest)
JUNO BEACH	3.59	
FORT LAUDERDALE BEACH	3.00	
POMPANO BEACH AIRPARK	2.71	
BIG CYPRESS RES. (HENDRY)	1.91	
FORT LAUDERDALE EXEC.	1.95	
CANAL POINT - *1942*	1.78	-0.37
PALM BEACH GARDENS	1.53	
BRIGHTON RESERVATION	1.42	
HOLLYWOOD - *1963*	1.15	-2.48
MOORE HAVEN – *1918*	0.90	-0.85 (41st driest)
CAPE FLORIDA	0.83	
TAMIAMI AIRPORT	0.71	
HOMESTEAD GEN. AIRPORT	0.68	
MIAMI BEACH – *1927*	0.62	-1.47 (20th driest)
NWS MIAMI/FIU	0.58	
HIALEAH – *1941*	0.50	-1.42 (15th driest)
NORTH MIAMI BEACH	0.50	
THE REDLAND - *1942*	0.24	-1.90 (6th driest)
NORTH PERRY AIRPORT	0.24	
MUSE	0.19	
LABELLE - *1929*	0.18	-1.86 (10TH driest)
OPA LOCKA	0.15	
IMMOKALEE	0.12	-2.06 (3rd driest)
ORTONA	0.09	

MARCO ISLAND	0	Driest on record
SOUTH BAY - OKEELANTA	0	Driest on record

The very dry January continues the trend this dry season of below normal precipitation totals. Since November 1, rainfall over most of south Florida has been less than half (50%) of the normal for the three-month period. Much of Mainland Monroe, Miami-Dade and Broward counties as well as southern Palm Beach County have recorded less than 25% of normal rainfall since November 1 (Figure 2).

Palm Beach International Airport (2.68 inches) and The Redland (1.35) had their 3rd driest November-January on record, while Miami International Airport (1.55) ranked 4th driest and LaBelle (1.35) ranked 5th driest for that same period. Fort Lauderdale (2.56) ranks 9th driest and Naples (2.05) ranks 13th driest.

This lack of significant rain over the area led to the expansion of abnormally dry conditions over all of south Florida (Figure 3).

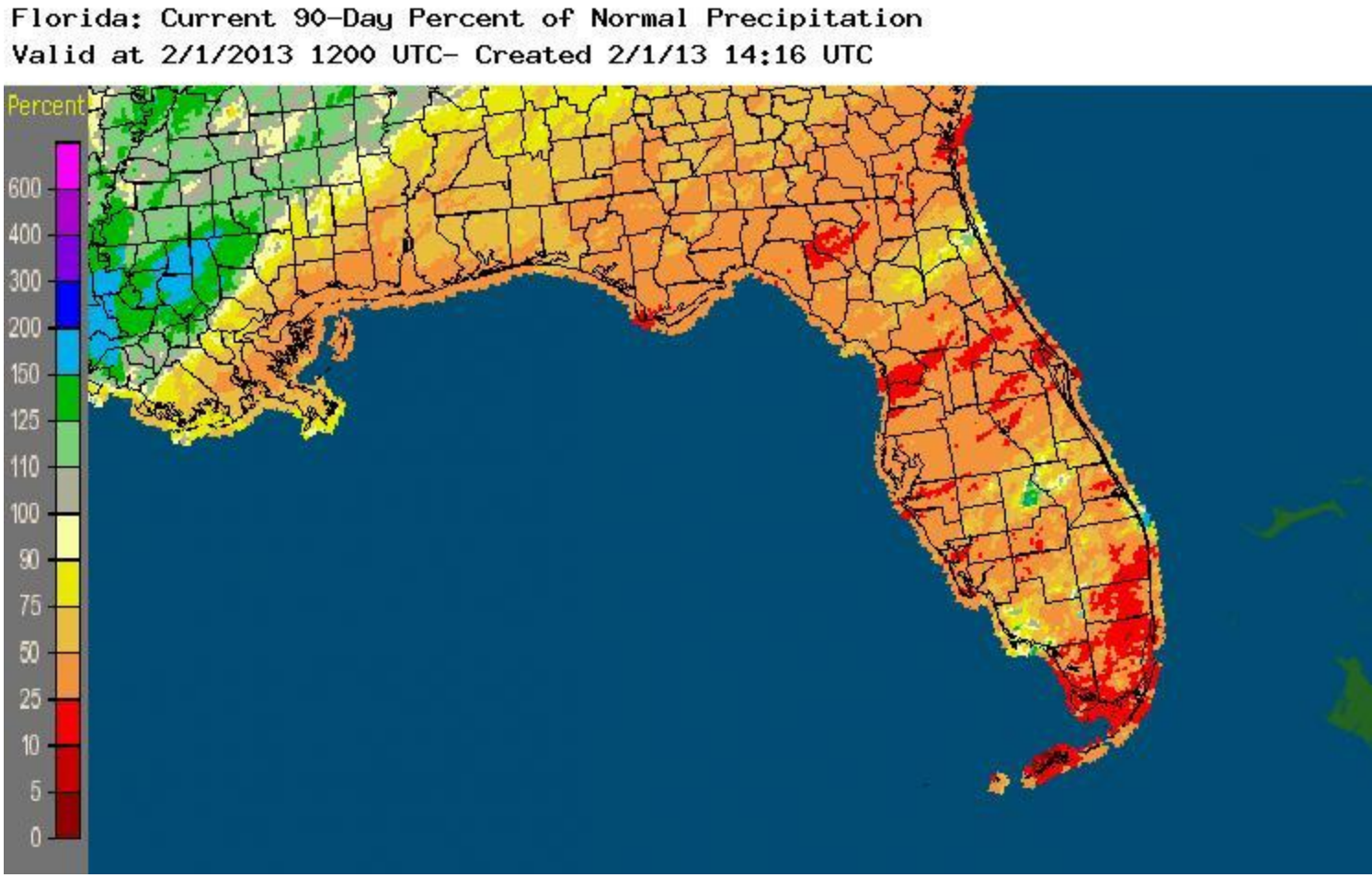


Figure 2: November 2012-January 2013 precipitation percent of normal. Red areas denote regions of less than 25% of normal rainfall. Dark orange represents 25 to 50%.

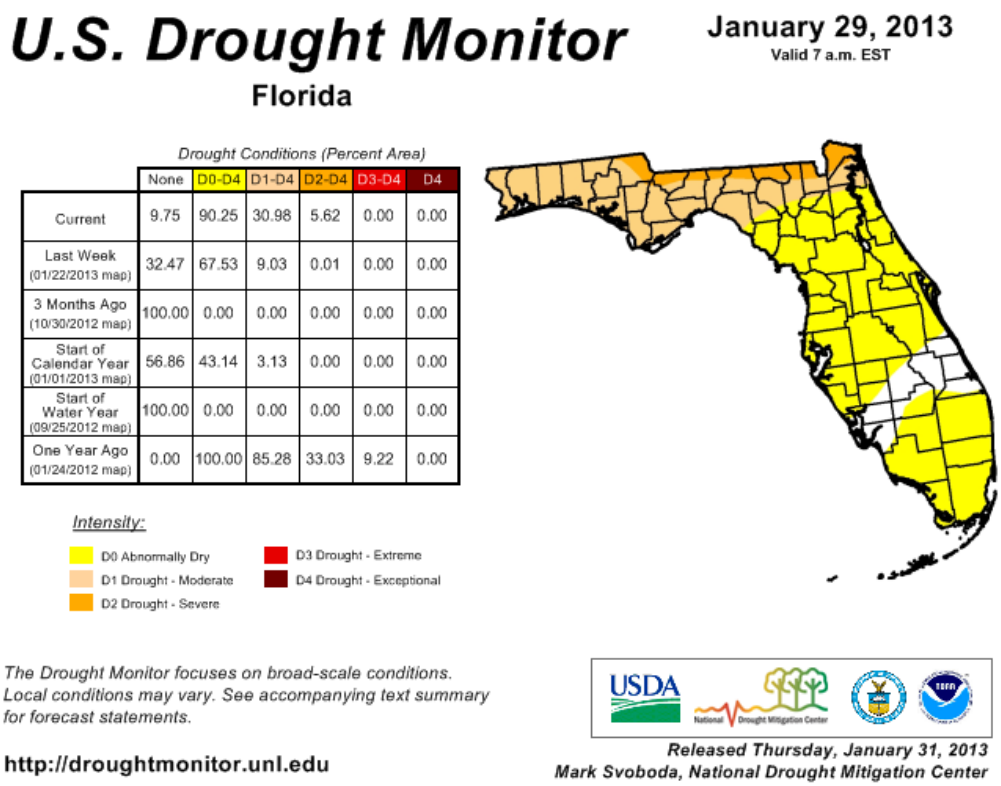


Figure 3: Abnormally dry conditions across south Florida.

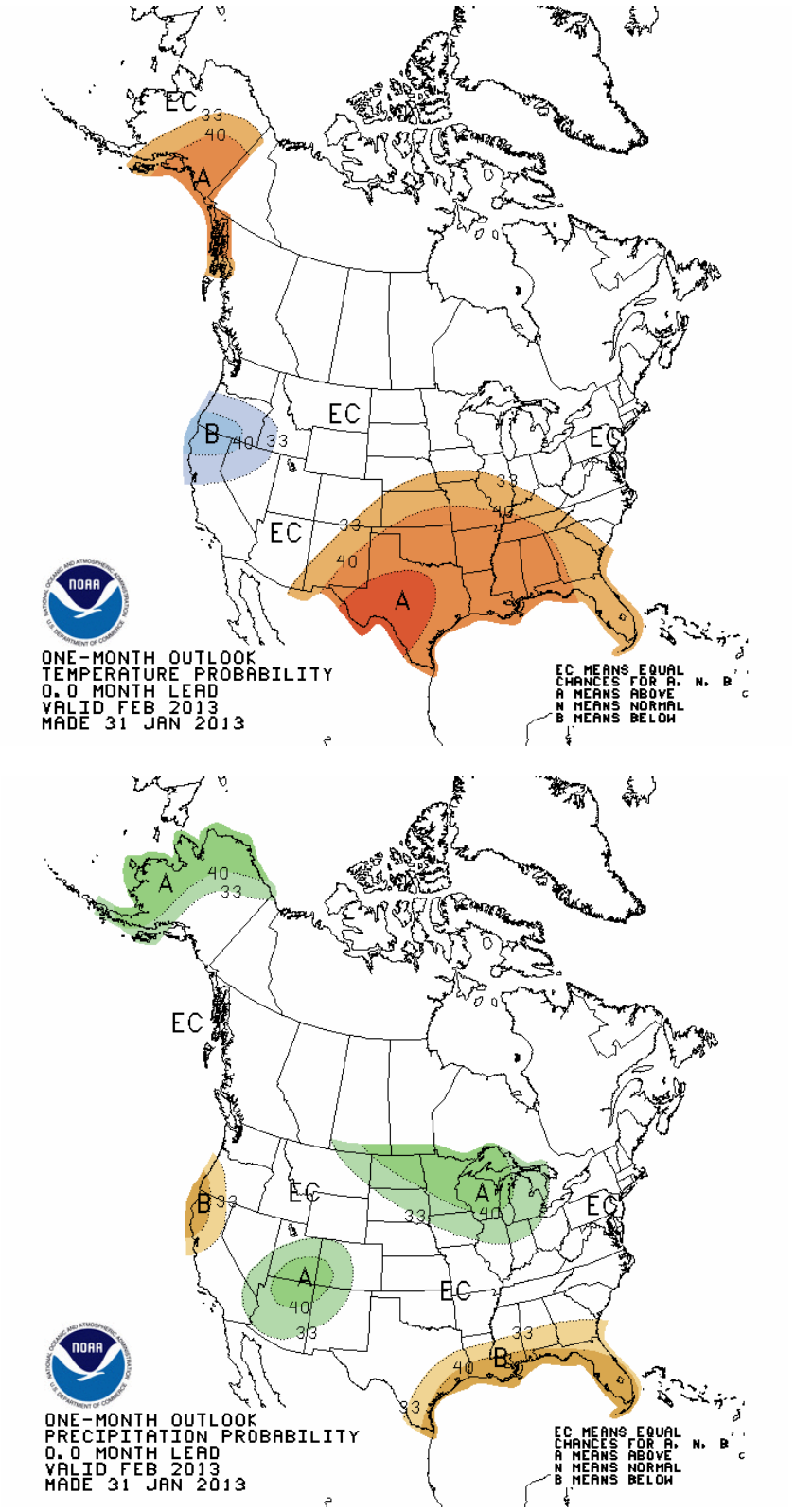
OUTLOOK FOR FEBRUARY THROUGH APRIL

A shift to cooler but near-average temperatures will start the month of February. However, the latest outlook from the NOAA Climate Prediction Center (CPC) is calling for an enhanced likelihood of above normal temperatures through the month (Figure 4). Looking at the February-April time frame, there are equal chances of near, above or below normal temperatures. February is usually the last month of freezing temperatures; therefore interests should keep a close watch on potentially damaging cold temperatures.

Precipitation-wise, the dry pattern will likely continue into the first week of February. The CPC precipitation outlook indicates the probability of the drier-than-normal winter pattern continuing (Figure 5), with equal chances of near, above and below normal for the February through April period. It is important to note that February-April is typically one of the driest periods of the year for south Florida and even if near-normal precipitation were to occur, overall conditions would still be quite dry. Therefore, deterioration of hydrological conditions is possible over the next several weeks as south Florida enters the time of year when drought and wildfire potential increase.

Monitor the NWS Miami Drought Page for continuous updates on precipitation and drought conditions across the area.

For the latest weather conditions, forecasts, warnings, advisories and statements, please visit the National Weather Service Miami-South Florida Forecast Office's web site at http://www.weather.gov/southflorida.



Figures 4-5: NOAA's Climate Prediction Center February outlooks.